

Chapter XLIX

A Socio–Cultural Analysis of the Present and the Future of the M–Commerce Industry

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ABSTRACT

With high optimism, the third generation mobile communication technologies were launched and adopted by telecommunication giants in different parts of the globe—Hutchison 3G in the UK, Verizon in the USA and NTT DoCoMo in Japan. However, with an uncertain and turbulent social, economic and political environment, and the downturn in the global economy, difficult conditions are pronounced for the initial promises of m-commerce technologies to be fully realized. The causes for this, determined so far, have been largely of a technical nature. In this chapter, we shift the focus of analysis from a pure technical approach to a socio-cultural one. The basic premise of the chapter is that cultural variations do play a very important part in shaping potential consumers' choice, belief and attitude about m-commerce services. We believe that to be an important way for the m-commerce industry to fulfill its potential.

INTRODUCTION

This chapter discusses the impact of socio-cultural aspects on mobile commerce (m-commerce). While m-commerce heralds the next revolutionary phase in the advent of digital technology, still the digital industry can be con-

sidered in its infancy. This makes its specific categorization difficult. However, as Mahatanankoon, Wen, and Lim (2004) point out, the 1980s can be roughly classified as the age of PCs, the '90s as the “decade of the Internet, and...the first decade of the 21st century as the decade of mobile computing and

mobile commerce.” By the end of 2004, the number of mobile phone subscribers was expected to be 1.5 billion—about one-quarter of the world’s population (Evans, 2004). The ITU (International Telecommunication Union) said the growth in mobile phone subscribers out-paced growth in the number of users of fixed lines (1.185 billion) today and is outstripping the rate of increase in Internet users. Emerging markets such as China, India, and Russia contribute to the growth. The current state of the digital age that we live in convinces us of the remarkable rate that wireless data communication (WDC)/mobile computing/mobile commerce services are penetrating the market with. It is predicted to be one of the main driving forces for the computing industry, as well as a substantial revenue-generating platform for businesses. Recent major findings by the research firm IDC (Mahatanankoon et al., 2004) predicted a growth in the mobile commerce revenues from US\$500 million in 2002 to US\$27 billion by 2005. Predictions by Forrester Research (Mahatanankoon et al., 2004) estimate an average of 2.2 wireless phones per U.S. household by 2007, with up to 2.3 million wired phone subscribers making a switch to wireless services. Worldwide, there were 94.9 million users of m-commerce in 2003; this is expected to grow to 1.67 billion in 2008, resulting in estimated global revenue of US\$554.37 billion (Wireless Week, 2004).

UNDERSTANDING M-COMMERCE

Mobile-commerce can be defined as the commercial transactions conducted through a variety of mobile equipment over a wireless telecommunication network in a wireless environment (Barnes, 2002; Coursaris & Hassanein, 2002; Gunsakaran & Ngai, 2003). Currently these wireless devices include two-way pagers/SMS (short message systems), WAP-

(wireless application protocol) equipped mobile phones, PDAs (personal digital assistants), Internet-enabled laptop computers with wireless access capacity, and consumer premise IEEE 802.11 (a/b) wireless network devices (Leung & Antypas, 2001). The range of applications that characterize m-commerce activities can be largely divided into:

- **Entertainment:** Includes online TV broadcasts, online mobile games, and downloaded music or ring tones.
- **Content Delivery:** Includes reporting, notification, consultation, and so forth.
- **Transactions:** Includes data entry, purchasing, promotions, and so forth (Balasubramanian, Peterson, & Jarvenpaa, 2002; Leung & Antypas, 2001).

Wireless cellular technology (third- and fourth-generation wireless cellular networks) areas have witnessed exciting innovations in recent years. 3G cellular networks offer broadband transmission with speeds up to 2Mbps, allowing for high-speed wireless access to the Internet, e-commerce transactions, and other information services from any location across the globe. Shim and Shim (2003) describe the not-so-far future of the industry as

...a true wireless broadband cellular system (4G), which can support a much higher bandwidth, global mobility, and tight network security; all at a lower cost. 4G systems should be able to offer a peak speed of more than 100 Mbits per second in stationary mode and an average of 20Mbits per second when in motion. The deployment of 4G technologies will allow the dream of a unified wireless Internet to become a reality.

On the other hand, Wi-Fi (wireless fidelity), wireless area local networks that allow users to surf the Internet while moving, are proliferating

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